

Remarks

The Office Action mailed December 19, 2003 has been carefully reviewed and the following remarks have been made in consequence thereof.

Claims 1-9 and 11-31 are now pending in this application. It is respectfully submitted that the pending claims define allowable subject matter.

Applicants note that the Office Action summary sheet does not acknowledge claim 31 as being pending in the application, and the text of the Office Action does not address claim 31. This is respectfully submitted to be in error, as Applicants records indicate that claim 31 is pending. Applicants accordingly request clarification of the status of claim 31 in the next Office Action.

The rejection of Claims 12, 13, 15, 19, 21-23, 25, and 29 under 35 U.S.C. § 102(b) as being anticipated by German (U.S. Patent No. 5,168,995) is respectfully traversed.

Applicants' position with respect to the German reference was set forth in detail in the previous response, which Applicants note was entered in the case via RCE. Applicants' position, however, is nowhere addressed in the present Office Action and it is not clear that Applicants' argument has been considered. Applicants further note that Applicants' arguments have not been addressed in any previous Office Action in the case, and that no clear issue has developed on the pertinent issues. As such, the present Office Action and the previous prosecution history includes no rebuttal or answer to the substance of Applicants' argument, and it is respectfully submitted that the present Office fails to answer all material traversed and is incomplete. Applicants request reconsideration of the present rejection of the claims in light of Applicants position, as set forth below, and Applicants request a full and fair opportunity to respond to all outstanding grounds of rejection once the grounds of rejection are completely set forth, or alternatively to provide Applicants' with sufficient information regarding the rejection of the claims to assess the advisability of appeal.

Applicants' position with respect to the German reference is that the German electrical component cover differs in material aspects from the presently claimed invention and that the German cover is ineffective for the intended purpose of the present invention. It is further submitted that the characterization of the German reference is not consistent with a fair reading of the German reference.

Regarding the law of anticipation, a rejection under § 102 requires a disclosure in a single piece of prior art of each and every limitation of a claimed invention.. The art must describe all of the elements of the claims arranged as in the patented device.

As Applicants' have submitted, German does not describe an integrally formed body section having opposite peripheral edges, opposed end edges, and a planar top surface extending therebetween, said top surface configured to form a vacuum seal with a tool for automatically assembling electrical components to other structures as recited in Claim 12. German nowhere discloses that the pinch clip lid as described and illustrated therein is configured to form a vacuum seal with a tool, and it is apparent from the Figures of German that forming a vacuum seal with a tool would be problematic for the German pinch clip lid.

German describes a three piece lid construction having a lid (10), a window (32) in the lid, and a cover (20) to maintain the window in place. Because the window (32) defines virtually the entire top surface area of the lid assembly, if a vacuum tool were to be used, a vacuum seal of the tool would engage the window (32) rather than the separate structure of the cover (20) which holds the window in place. That is, only the window (32) provides a viable engagement surface for a vacuum seal tool if one were to be employed. The peripheral area of the cover (20) surrounding the window (32) is inadequate for engagement with a vacuum seal tool due to its relatively small size. If a vacuum tool were to be used with the periphery of the cover (20) it is submitted that an unbalanced load on the tool and bending stresses in the cover would result, either of which would be problematic to reliable and consistently repeatable placement of the

cover and associated electronic package, and therefore defeat the primary advantage of using such a tool in the first place (i.e., precise and repeatable positioning of the cover).

Thus, it is respectfully submitted that the assertion in the Office Action that German discloses “a planar top surface 32 configured to form a vacuum seal with a tool” is not supported by a fair reading of the German reference. Rather, for the reasons set forth above, the construction of the German lid is detrimental to the use of vacuum tools. It is therefore submitted that the structure recited in claim 12 is not anticipated by German.

It is further submitted that claim 12 is not obvious over German. The presence of the window (32) described by German teaches away from the use of such a vacuum seal tool. Any applied force and resultant stress induced in the cover during pickup and placement by a tool engaged to the window would be borne predominately in the glass window and not in the metal components of the cover. The glass window is the least structurally capable component in German's lid to withstand the applied forces and stress when picking up the cover, and it is submitted to be inadvisable to attempt such a pick up. Aside from structural concerns, picking the cover up by the window would be detrimental to repeatability of positioning of the cover in use with a vacuum tool, as some relative movement of the window with respect to the cover is likely in such a scenario.

Still further, German describes that the windowed lid provides visual inspection of the exposed electronic component within the package. This intended function of the window would appear to militate against modification of the German cover to make it more amenable to vacuum pick up tools. Reducing the size of the window and enlarging the top surface area of the cover to accommodate a vacuum seal on the metal portion of the cover would be undesirable in that it would defeat visual inspection of electronic components through the window. Likewise, maintaining the size of the window and enlarging the cover to form a larger top surface area of the cover to accommodate a vacuum seal would be undesirable as the lid would occupy a greater space on a crowded circuit board. German notes that space constraints

sometimes requires undesirable removal of lids before installation to an electronic package. See German col. 1, lines 25-36. Increasing the size of the lid would appear to increase the likelihood of its removal prior to installation of the electronic package and further defeat the application of vacuum seal tools.

For at least the reasons set forth above, the German lid is submitted to be incompatible for use with vacuum tools, and the incompatibility for use with vacuum tools is not easily rectified with modification to the cover without rendering the German lid ineffective for the purposes described therein (i.e., visual inspection without removal of the cover). The German reference therefore neither anticipates nor renders the presently claimed invention obvious.

German also does not describe an integrally formed body section including a release arm extending from at least one of opposed end edges of the body section, the release arm configured to releasably retain an electrical component as recited in Claim 12. The assertion in the Office Action that German's elements (28) meet the recited release arms is respectfully traversed. German describes side bars (30) which are separately fabricated from and attached to the cover (20) at tabs (28) by suitable means, such as spot welding. Absent the side bars (30), the tabs (28) lack structure that would allow them to be released from a component.

Furthermore, German does not describe an integrally formed body section including a flange provided along at least one of said peripheral edges of said body section, said flange preventing movement of an upper end of an electrical component relative to said body section in at least one direction parallel to said top surface. Rather, German describes that the cover (20) includes a central aperture (22) with four side portions (24). Tabs (26) extending from opposing sides (24) are bent underneath the step lid (10) to secure the cover (20) to the step lid (10). German does not describe or suggest that the tabs (26) or the sides from which they depend prevent relative movement of the cover relative to the electronic package as recited in Claim 12. Only the centering portion (18) of the lid (10), which is separately provided from the cover (20),

precludes relative movement of the cover in a direction parallel to the top surface of the cover when fitted within a shoulder of a non-hermetic package (40).

For at least the reasons set forth above, Claim 12 is respectfully submitted to be patentable over German.

Likewise, the recitations of Claims 13, 15, 19, and 21, when considered in combination with the recitations of Claim 12, are submitted to be patentable over German.

Independent Claim 22 recites an electrical component cover, comprising "an integrally formed body section having peripheral edges and a planar top surface extending between said peripheral edges, said top surface configured to form a vacuum seal with a tool for automatically assembling electrical components to other structures," and "said integrally formed body section including a release arm extending from at least one of said opposed edges of said body section, said release arm configured to releasably retain an electrical component and configured to engage an electric component to hold an electric component a desired distance from said body section."

For the reasons set forth above, German does not describe an integrally formed body section having a planar top surface configured to form a vacuum seal with a tool, but rather describes a three piece construction having a window which is detrimental to the use of a vacuum seal tool. Also, for the reasons set forth above, German does not describe integrally formed body section including a release arm extending from at least one of said opposed edge of the body section configured to releasably retain an electrical component, but rather describes separately provided side bars (30) extending from the sheet metal cover (20) which is coupled to the lid (10). Absent the side bars (30) there is no structure in the German cover which would permit release of the cover from a component.

For at least the reasons set forth above, Claim 22 is respectfully submitted to be patentable over German.

Likewise, the recitations of Claims 23, 25, 29 and 31, when considered in combination with the recitations of Claim 22, are submitted to be patentable over German.

Moreover, Claims 19 and 29 recite that the body section is injection molded with opposite ends molded integral with end walls of said release arm, the end walls extending in a direction transverse to a plane containing said planar top surface, and the end walls extending laterally along the opposite ends. German describes a cover (20) formed from sheet metal with separately attached side bars (30) to disengage the cover (20). Claims 19 and 29 are respectfully submitted to be neither described nor suggested by German.

The Office Action states that the “injection molded” limitation does not describe a structural difference, and that process limitations in patent claims cannot impart patentability to the product. Applicants submit, however, that in the context of the present case, an injection molded part does impart structural differences over the welded construction of the German device. An injection molded part has uniform material properties throughout while a welded part does not, and these properties may have a material effect on the performance and capability of the structure to serve its intended purpose.

Claims 21 and 31 recite that the planar top surface is rigid to facilitate the formation of a vacuum seal. As noted above, German nowhere describes a vacuum seal in conjunction with the cover (20), and the cover (20) described by German includes a window that would defeat the use of a vacuum seal. Claims 21 and 31 are respectfully submitted to be neither described nor suggested by German.

For the reasons set forth above, Applicants respectfully request that the § 102 rejection of Claims 12, 13, 15, 19, 21-23, 25, 29 and 31 be withdrawn.

The rejection of Claims 1-4, 6-8 and 11 under 35 U.S.C. § 103 as being unpatentable over German in view of Dechelette (U.S. Patent No. 4,512,619) is respectfully traversed.

German is described above and is different from the claimed invention in material ways for the reasons set forth above.

Dechelette is cited for teaching a stamped metallic body, which is true, but Dechelette bears no apparent relation to the present invention. Dechelette describes an insulation displacement terminal for an electrical connector. Notably, Dechelette does not describe an electronic package, and Dechelette does not describe a cover for an electronic package. Dechelette is submitted to have no relation to the presently claimed invention and adds nothing to the teaching of German with respect to the instant invention. It is respectfully submitted for the reasons below that Dechelette fails to cure the deficiencies of German with respect to Claim 1, and the cited reference are submitted to collectively fail to describe or suggest each limitation of Claim 1.

German does not describe a stamped metallic body having a top surface configured to form a vacuum seal with a tool as recited in claim 1, but rather describes a three piece lid assembly including a body, a glass plate window in the body, and a cover which holds the glass plate in place. Because the window defines substantially the entire top surface of the lid assembly, it is submitted that the metal cover (20) of the lid assembly described by German does not include a top surface configured to form a vacuum seal with a tool. Also, for the reasons set forth above, the construction of the lid assembly described by German appears to teach away from the use of vacuum tools and any modification of the construction thereof which may render the lid assembly suitable for placement by vacuum seal tools. Likewise, Dechelette does not describe a surface configured to form a vacuum seal with a tool. Neither of the cited references describes or suggests a surface configured for use with a vacuum tool.

As noted above, German does not describe a sheet metal cover (20) with separately provided side bars (30) attached thereto with suitable means such as welding. The side bars (30) are not fairly characterized as a part of a stamped metallic body section. Likewise, Dechelette does not describe a cover connectable to a component, and does not describe a body having a

component retention member as recited in Claim 1. Neither of the cited references describe a cover connectable to a component.

Thus, the stamped metallic body recited in claim 1 is neither described nor suggested by German in view of Dechelette. Neither of the features describe or suggest the recited features of the stamped metallic body according to claim 1. Claim 1 is therefore submitted to be patentable over German in view of Dechelette.

Likewise the recitations of Claims 2-4, 6-8 and 11, when considered in combination with the recitations of Claim 1, are submitted to be patentable over German in view of Dechelette.

For the reasons set forth above, Applicants respectfully request that the rejection of Claims 1-4, 6-8 and 11 under 35 U.S.C. § 103 as being unpatentable over German in view of Dechelette be withdrawn.

The rejection of Claims 5 and 9 under 35 U.S.C. § 103 as being unpatentable over German in view of Dechelette and further in view of Miyazawa is respectfully traversed.

Claims 5 and 9 depend from Claim 1, which is submitted to be patentable for the reasons set forth above. When the recitations of Claims 5 and 9 are considered in combination with the recitations of Claim 1, Claims 5 and 9 are likewise submitted to be patentable over the cited art.

For the reasons set forth above, Applicants respectfully request that the rejection of Claims 5 and 9 under 35 U.S.C. § 103 as being unpatentable over German in view of Dechelette and further in view of Miyazawa be withdrawn.

The rejection of Claims 14, 17, 18, 24, 27, and 28 under 35 U.S.C. § 103 as being unpatentable over German is respectfully traversed.

Claims 14 and 24 recite a catch surface configured to be secured to a bottom of an electric component to retain the body section on an electric component. German describes a pair

of attachment tabs (28) extending from sides (24) of the cover (20) which engage flat and smooth sides of a component package (40) without contacting a bottom of the component package. See German Figures 4 and 6. Only the bias of the side bars (30) engages the pinch lid described by German to the electronic package (40), and resultant pressure applied by the side bars (30) to the sides of the electronic package (40) holds the lid in place.

The characterization in the Office Action that providing a catch surface to the lid described by German would be a mere change in the size of the component is respectfully traversed. A catch surface configured to be secured to a bottom of an electrical component would entail a change in shape, and not merely a change in size, of the attachment tabs (28) or side bars (30) of the cover (20) described by German. Based upon the German figures, the only manner in which the side bars (30) could be secured to the bottom of the electrical component would be to increase the length of the side bars (30) without a corresponding increase in dimension of the cover (20). That is, the dimension of the side bars (30) would have to be disproportionately scaled relative to the cover to provide a catch surface for the bottom of a component. A motivation to make the requisite change in shape is nowhere apparent from German.

Moreover, nothing in the text or illustrations of German suggests that a catch surface secured to a bottom surface of an electrical component would be desirable or advantageous, and therefore it is submitted that German is not suggestive of the recited catch surface. Claims 14 and 24 are therefore submitted to be patentable over German.

Likewise, with respect to the assertion that the recitations in Claims 17 and 27 involve a mere change in size of the component's angle, it is respectfully submitted that the modification of the German reference to the invention claims in Claims 17 and 27 entails a change in shape of the components that is not described, suggested or motivated by the German reference. Claims 17 and 27 are therefore submitted to be patentable over German.

With respect to Claims 18 and 28, the Office Action characterizes the centering portion (18) of the pinch lid as a stop beam configured to engage an electrical component. However, German describes that the centering portion (18) is received in a shoulder of the electronic package, and the lid is held to the package with the side rails (30) and attachment tabs (28) on the sides of the package. The centering portion (18) of the lid (10) is received in a shoulder in the package (40) such that there is no separation between the pinch lid and the electronic package when the pinch lid is installed. Claims 18 and 28 each recite that the stop beams are configured to engage an electric component to hold an electric component at a desired distance from the body section. The centering portion (18) described by German does not hold an electronic component in any aspect, but rather rests within or upon the electronic package (40).

Further, with respect to the assertion that providing a stop beam with an acute angle to the top surface involves a mere change in size of the component's angle, it is respectfully submitted that the modification of the German reference to the invention claims in Claims 18 and 28 entails a change in the shape of the components that is not described, suggested or motivated by the German reference.

For at least the reasons set forth above, Claims 18 and 28 are submitted to be patentable over German.

For the reasons set forth above, Applicants respectfully request that the rejection of Claims 14, 17, 18, 24, 27, and 28 under 35 U.S.C. § 103 as being unpatentable over German be withdrawn.

The rejection of Claims 16, 20, 26 and 30 under 35 U.S.C. § 103 as being unpatentable over German in view of Miyazawa is respectfully traversed.

Claim 16 and 20 depend from Claim 12, and when the recitations of Claims 16 and 20 are considered in combination with the recitations of Claim 12, Applicants submit that Claims 16 and 20 likewise are patentable over the cited art.



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For the reasons set forth above, Applicants respectfully request that the rejection of Claims 16, 20, 26 and 30 under 35 U.S.C. § 103 as being unpatentable over German in view of Miyazawa be withdrawn.

In view of the foregoing remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

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